

RECEIVED

NOV 06 2003



TECH CENTER 1600/2900

1600

## RAW SEQUENCE LISTING

DATE: 10/23/2003

PATENT APPLICATION: US/09/641,528B

TIME: 11:02:13

Input Set : E:\Sub Seq List 2060\_0100001.txt

Output Set: N:\CRF4\10232003\I641528B.raw

4 <110> APPLICANT: Sette, Alessandro  
5       Sidney, John  
6       Southwood, Scott  
7       Chesnut, Robert  
8       Celis, Esteban  
9       Grey, Howard  
11 <120> TITLE OF INVENTION: INDUCING CELLULAR IMMUNE RESPONSES TO HUMAN PAPILLOMAVIRUS  
12       USING PEPTIDE AND NUCLEIC ACID COMPOSITIONS  
14 <130> FILE REFERENCE: 2060.0100001  
16 <140> CURRENT APPLICATION NUMBER: US 09/641,528B  
17 <141> CURRENT FILING DATE: 2000-08-15  
19 <150> PRIOR APPLICATION NUMBER: US 60/172,705  
20 <151> PRIOR FILING DATE: 1999-12-10  
22 <160> NUMBER OF SEQ ID NOS: 51505  
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
26 <210> SEQ ID NO: 1  
27 <211> LENGTH: 10  
28 <212> TYPE: PRT  
29 <213> ORGANISM: Artificial Sequence  
31 <220> FEATURE:  
32 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
34 <400> SEQUENCE: 1  
35 Ala Met Leu Ala Lys Phe Lys Glu Leu Tyr  
36   1                               5                               10  
39 <210> SEQ ID NO: 2  
40 <211> LENGTH: 8  
41 <212> TYPE: PRT  
42 <213> ORGANISM: Artificial Sequence  
44 <220> FEATURE:  
45 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
47 <400> SEQUENCE: 2  
48 Ala Thr Val Pro Cys Trp Asn Tyr  
49   1                               5  
52 <210> SEQ ID NO: 3  
53 <211> LENGTH: 9  
54 <212> TYPE: PRT  
55 <213> ORGANISM: Artificial Sequence  
57 <220> FEATURE:  
58 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
60 <400> SEQUENCE: 3  
61 Ala Val Gln Val Leu Lys Arg Lys Tyr  
62   1                               5  
65 <210> SEQ ID NO: 4

P.6

ENTERED

## RAW SEQUENCE LISTING

DATE: 10/23/2003

PATENT APPLICATION: US/09/641,528B

TIME: 11:02:13

Input Set : E:\Sub Seq List 2060\_0100001.txt

Output Set: N:\CRF4\10232003\I641528B.raw

66 <211> LENGTH: 11  
67 <212> TYPE: PRT  
68 <213> ORGANISM: Artificial Sequence  
70 <220> FEATURE:  
71 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
73 <400> SEQUENCE: 4  
74 Cys Thr Phe Glu Ser Gln Met Val Gln Trp  
75 1 5 10  
78 <210> SEQ ID NO: 5  
79 <211> LENGTH: 10  
80 <212> TYPE: PRT  
81 <213> ORGANISM: Artificial Sequence  
83 <220> FEATURE:  
84 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
86 <400> SEQUENCE: 5  
87 Asp Ile Val Asp Asp Ser Glu Ile Ala Tyr  
88 1 5 10  
91 <210> SEQ ID NO: 6  
92 <211> LENGTH: 11  
93 <212> TYPE: PRT  
94 <213> ORGANISM: Artificial Sequence  
96 <220> FEATURE:  
97 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
99 <400> SEQUENCE: 6  
100 Asp Ser Asp Thr Gly Glu Asp Leu Val Asp Phe  
101 1 5 10  
104 <210> SEQ ID NO: 7  
105 <211> LENGTH: 8  
106 <212> TYPE: PRT  
107 <213> ORGANISM: Artificial Sequence  
109 <220> FEATURE:  
110 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
112 <400> SEQUENCE: 7  
113 Asp Ser Glu Ile Ala Tyr Lys Tyr  
114 1 5  
117 <210> SEQ ID NO: 8  
118 <211> LENGTH: 10  
119 <212> TYPE: PRT  
120 <213> ORGANISM: Artificial Sequence  
122 <220> FEATURE:  
123 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
125 <400> SEQUENCE: 8  
126 Asp Ser Ile Lys Thr Leu Leu Gln Gln Tyr  
127 1 5 10  
130 <210> SEQ ID NO: 9  
131 <211> LENGTH: 9  
132 <212> TYPE: PRT  
133 <213> ORGANISM: Artificial Sequence  
135 <220> FEATURE:

## RAW SEQUENCE LISTING

DATE: 10/23/2003

PATENT APPLICATION: US/09/641,528B

TIME: 11:02:13

Input Set : E:\Sub Seq List 2060\_0100001.txt

Output Set: N:\CRF4\10232003\I641528B.raw

```

136 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus
138 <400> SEQUENCE: 9
139 Asp Thr Gly Glu Asp Leu Val Asp Phe
140 1 5
143 <210> SEQ ID NO: 10
144 <211> LENGTH: 9
145 <212> TYPE: PRT
146 <213> ORGANISM: Artificial Sequence
148 <220> FEATURE:
149 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus
151 <400> SEQUENCE: 10
152 Asp Thr Asn Ser Asn Ala Ser Ala Phe
153 1 5
156 <210> SEQ ID NO: 11
157 <211> LENGTH: 10
158 <212> TYPE: PRT
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus
164 <400> SEQUENCE: 11
165 Glu Leu Asn Asp Lys Asn Trp Lys Ser Phe
166 1 5 10
169 <210> SEQ ID NO: 12
170 <211> LENGTH: 11
171 <212> TYPE: PRT
172 <213> ORGANISM: Artificial Sequence
174 <220> FEATURE:
175 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus
177 <400> SEQUENCE: 12
178 Glu Leu Asn Asp Lys Asn Trp Lys Ser Phe Phe
179 1 5 10
182 <210> SEQ ID NO: 13
183 <211> LENGTH: 8
184 <212> TYPE: PRT
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus
190 <400> SEQUENCE: 13
191 Glu Leu Ser Gln Met Val Gln Trp
192 1 5
195 <210> SEQ ID NO: 14
196 <211> LENGTH: 10
197 <212> TYPE: PRT
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus
203 <400> SEQUENCE: 14
204 Glu Leu Ser Gln Met Val Gln Trp Ala Tyr
205 1 5 10

```

## RAW SEQUENCE LISTING

DATE: 10/23/2003

PATENT APPLICATION: US/09/641,528B

TIME: 11:02:13

Input Set : E:\Sub Seq List 2060\_0100001.txt

Output Set: N:\CRF4\10232003\I641528B.raw

208 <210> SEQ ID NO: 15  
209 <211> LENGTH: 9  
210 <212> TYPE: PRT  
211 <213> ORGANISM: Artificial Sequence  
213 <220> FEATURE:  
214 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
216 <400> SEQUENCE: 15  
217 Glu Thr Glu Thr Ala His Ala Leu Phe  
218 1 5  
221 <210> SEQ ID NO: 16  
222 <211> LENGTH: 9  
223 <212> TYPE: PRT  
224 <213> ORGANISM: Artificial Sequence  
226 <220> FEATURE:  
227 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
229 <400> SEQUENCE: 16  
230 Glu Thr Glu Thr Pro Cys Ser Gln Tyr  
231 1 5  
234 <210> SEQ ID NO: 17  
235 <211> LENGTH: 9  
236 <212> TYPE: PRT  
237 <213> ORGANISM: Artificial Sequence  
239 <220> FEATURE:  
240 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
242 <400> SEQUENCE: 17  
243 Glu Val Tyr Gly Asp Thr Pro Glu Trp  
244 1 5  
247 <210> SEQ ID NO: 18  
248 <211> LENGTH: 8  
249 <212> TYPE: PRT  
250 <213> ORGANISM: Artificial Sequence  
252 <220> FEATURE:  
253 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
255 <400> SEQUENCE: 18  
256 Phe Ile Val Asn Asp Asn Asp Tyr  
257 1 5  
260 <210> SEQ ID NO: 19  
261 <211> LENGTH: 9  
262 <212> TYPE: PRT  
263 <213> ORGANISM: Artificial Sequence  
265 <220> FEATURE:  
266 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
268 <400> SEQUENCE: 19  
269 Phe Leu Gln Gly Ser Val Ile Cys Phe  
270 1 5  
273 <210> SEQ ID NO: 20  
274 <211> LENGTH: 9  
275 <212> TYPE: PRT  
276 <213> ORGANISM: Artificial Sequence

## RAW SEQUENCE LISTING

DATE: 10/23/2003

PATENT APPLICATION: US/09/641,528B

TIME: 11:02:13

Input Set : E:\Sub Seq List 2060\_0100001.txt

Output Set: N:\CRF4\10232003\I641528B.raw

278 <220> FEATURE:  
279 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
281 <400> SEQUENCE: 20  
282 Phe Leu Arg Tyr Gln Gly Val Glu Phe  
283 1 5  
286 <210> SEQ ID NO: 21  
287 <211> LENGTH: 8  
288 <212> TYPE: PRT  
289 <213> ORGANISM: Artificial Sequence  
291 <220> FEATURE:  
292 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
294 <400> SEQUENCE: 21  
295 Phe Leu Thr Ala Leu Lys Arg Phe  
296 1 5  
299 <210> SEQ ID NO: 22  
300 <211> LENGTH: 11  
301 <212> TYPE: PRT  
302 <213> ORGANISM: Artificial Sequence  
304 <220> FEATURE:  
305 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
307 <400> SEQUENCE: 22  
308 Phe Met Ser Phe Leu Thr Ala Leu Lys Arg Phe  
309 1 5 10  
312 <210> SEQ ID NO: 23  
313 <211> LENGTH: 8  
314 <212> TYPE: PRT  
315 <213> ORGANISM: Artificial Sequence  
317 <220> FEATURE:  
318 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
320 <400> SEQUENCE: 23  
321 Phe Ser Glu Leu Val Arg Pro Phe  
322 1 5  
325 <210> SEQ ID NO: 24  
326 <211> LENGTH: 9  
327 <212> TYPE: PRT  
328 <213> ORGANISM: Artificial Sequence  
330 <220> FEATURE:  
331 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
333 <400> SEQUENCE: 24  
334 Phe Thr Phe Pro Asn Glu Phe Pro Phe  
335 1 5  
338 <210> SEQ ID NO: 25  
339 <211> LENGTH: 8  
340 <212> TYPE: PRT  
341 <213> ORGANISM: Artificial Sequence  
343 <220> FEATURE:  
344 <223> OTHER INFORMATION: Peptide Derived from Human Papillomavirus  
346 <400> SEQUENCE: 25  
347 Phe Val Asn Ser Lys Ser His Phe

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/641,528B

DATE: 10/23/2003  
TIME: 11:02:14

Input Set : E:\Sub Seq List 2060\_0100001.txt  
Output Set: N:\CRF4\10232003\I641528B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:46478; Xaa Pos. 1,2,3  
Seq#:46515; Xaa Pos. 1,2,3  
Seq#:46537; Xaa Pos. 1,2,3  
Seq#:46552; Xaa Pos. 1,2,3  
Seq#:46553; Xaa Pos. 1  
Seq#:46639; Xaa Pos. 1,2,3  
Seq#:46845; Xaa Pos. 1,2  
Seq#:46896; Xaa Pos. 1,2,3  
Seq#:46912; Xaa Pos. 1  
Seq#:47013; Xaa Pos. 1,2,3  
Seq#:47014; Xaa Pos. 1,2  
Seq#:47238; Xaa Pos. 1,2,3  
Seq#:47239; Xaa Pos. 1,2  
Seq#:47282; Xaa Pos. 1,2,3  
Seq#:47309; Xaa Pos. 1,2,3  
Seq#:47324; Xaa Pos. 1,2,3  
Seq#:47399; Xaa Pos. 1,2,3  
Seq#:47565; Xaa Pos. 1,2,3  
Seq#:47618; Xaa Pos. 1,2,3  
Seq#:47619; Xaa Pos. 1,2  
Seq#:47620; Xaa Pos. 1  
Seq#:47675; Xaa Pos. 1,2,3  
Seq#:47690; Xaa Pos. 1,2,3  
Seq#:47770; Xaa Pos. 1,2,3  
Seq#:47938; Xaa Pos. 1,2,3  
Seq#:48003; Xaa Pos. 1,2,3  
Seq#:48018; Xaa Pos. 1,2,3  
Seq#:48110; Xaa Pos. 1,2,3  
Seq#:48111; Xaa Pos. 1,2  
Seq#:48182; Xaa Pos. 1,2  
Seq#:48242; Xaa Pos. 1,2,3  
Seq#:48259; Xaa Pos. 1,2,3  
Seq#:48260; Xaa Pos. 1  
Seq#:48349; Xaa Pos. 1,2,3  
Seq#:48350; Xaa Pos. 1,2  
Seq#:51503; Xaa Pos. 1,5,6,8,9  
Seq#:51504; Xaa Pos. 1,3,5,6,7  
Seq#:51505; Xaa Pos. 3